

CLAIMS:

1. A bed rail comprising
a side rail,
5 a clamp including a fixed jaw adapted to be positioned under a
mattress in a fixed position and a movable jaw configured to move toward the fixed
jaw to move the side rail toward the mattress to clamp the mattress between the side
rail and the fixed jaw with a clamping force to mount the side rail alongside the
mattress, and
10 means for indicating whether the clamping force complies with
predetermined clamping force criteria upon relative movement between the movable
jaw and the side rail due to movement of the movable jaw toward the fixed jaw and
engagement between the side rail and the mattress.
2. The bed rail of claim 1, wherein the indicating means includes
15 a signaler including a clamped signal and an unclamped signal, the signaler is
configured to display the clamped signal when the clamping force complies with the
predetermined clamping force criteria, and the signaler is configured to display the
unclamped signal when the clamping force does not comply with the predetermined
clamping force criteria.
- 20 3. The bed rail of claim 1, wherein the indicating means includes
a clamped signal, an unclamped signal, and a spring configured to resist relative
movement between the movable jaw and the side rail upon movement of the movable
jaw toward the fixed jaw and engagement between the side rail and the mattress to
promote display of the clamped signal when the clamping force complies with the
25 predetermined clamping force criteria and to promote display of the unclamped signal
when the clamping force does not comply with the predetermined clamping force
criteria.
4. The bed rail of claim 1, wherein the indicating means includes
a slide, the movable jaw includes a guide track, and the slide and the guide track are
30 configured for relative slidable movement against one another upon relative
movement between the movable jaw and the side rail.
5. The bed rail of claim 1, wherein the indicating means includes
spring and a body coupled to the side rail, the body includes a spring mount to which

the spring is coupled, a slide, and a signaler, the movable jaw includes a guide track and a window, the slide and the guide track are configured for relative slidable movement against one another to facilitate relative movement between the movable jaw and the side rail, and the spring is configured to resist movement of the movable jaw relative to the side rail upon movement of the movable jaw toward the fixed jaw and engagement between the side rail and the mattress so that the signaler will display a clamped signal in the window when the clamping force complies with the predetermined clamping force criteria and will display an unclamped signal in the window when the clamping force does not comply with the predetermined clamping force criteria.

6. The bed rail of claim 1, wherein the indicating means includes a spring mount coupled to the side rail, a spring loader coupled to the movable jaw, and a spring positioned between the spring mount and the spring loader to be compressed against the spring mount by the spring loader upon relative movement between the movable jaw and the side rail.

7. The bed rail of claim 1, wherein the indicating means includes a lug coupled to the side rail and the movable jaw is formed to include a groove to receive the lug therein for relative slidable movement between the lug and the groove upon relative movement between the movable jaw and the side rail.

8. A bed rail comprising
a side rail,
a clamp configured to cooperate with the side rail to clamp a mattress with a clamping force to mount the side rail alongside the mattress, and
a clamping force indicator configured to provide information about the clamping force.

9. The bed rail of claim 8, wherein the clamping force indicator is configured to indicate whether the clamping force complies with predetermined clamping force criteria.

10. The bed rail of claim 9, wherein the clamping force indicator includes a signaler configured to display a clamped signal when the clamping force complies with the predetermined clamping force criteria and to display an unclamped signal when the clamping force does not comply with the predetermined clamping force criteria.

11. The bed rail of claim 9, wherein the clamp and the side rail are configured for movement relative to one another upon clamping and unclamping the mattress and the clamping force indicator includes an elastic device configured to resist relative movement between the clamp and the side rail upon clamping the
5 mattress and configured to cause relative movement between the clamp and the side rail upon unclamping the mattress.

12. The bed rail of claim 8, wherein the clamp includes a fixed jaw and a movable jaw, the fixed jaw is adapted to be positioned under the mattress in a fixed position, and the movable jaw is configured to move relative to the fixed jaw
10 and to act through the clamping force indicator to move the side rail toward the mattress to clamp the mattress between the side rail and the fixed jaw with the clamping force.

13. The bed rail of claim 12, wherein the movable jaw and the side rail are configured for movement relative to one another and the clamping force
15 indicator includes a spring configured to resist relative movement between the movable jaw and the side rail upon movement of the movable jaw toward the fixed jaw and engagement between the side rail and the mattress.

14. The bed rail of claim 12, wherein the movable jaw is formed to include a slot and the side rail includes an end portion extending through the slot for
20 relative movement between the end portion and the slot.

15. The bed rail of claim 12, wherein the clamping force indicator includes a spring and a body, the body includes a spring mount to which the spring is coupled, a slide, a signaler, and a load transmitter, the movable jaw includes a guide track, a window, and a spring loader, the slide and the guide track are configured for
25 relative slidable movement against one another to facilitate loading of the spring by the spring loader and to facilitate movement of the window relative to the signaler upon movement of the movable jaw toward the fixed jaw and engagement between the side rail and the mattress for display of the clamped signal in the window when the clamping force complies with the predetermined clamping force criteria and for
30 display of the unclamped signal when the clamping force does not comply with predetermined clamping force criteria, and the load transmitter is configured to transmit loading of the spring to the side rail for application of the clamping force to the mattress.

16. The bed rail of claim 12, wherein the clamping force indicator includes a slide, the movable jaw includes a guide track, and the slide and the guide track are configured to slide against one another.

17. The bed rail of claim 16, wherein the slide includes a pair of
5 lugs spaced apart from one another and coupled to an end portion included in the side rail and the movable jaw is formed to include a groove to receive the pair of lugs therein.

18. The bed rail of claim 8, further comprising a second clamp and
10 a second clamping force indicator, wherein the second clamp is configured to cooperate with the side rail to clamp the mattress with a second clamping force to mount the side rail alongside the mattress, and the second clamping force indicator is configured to provide information about the second clamping force.

19. The bed rail of claim 18, wherein the clamp and the clamping
15 force indicator are positioned adjacent to a first end portion of the side rail and the second clamp and the second clamping force indicator are positioned adjacent to a second end portion of the side rail.

20. A bed rail comprising
a side rail,
a clamp including a fixed jaw adapted to be positioned under a
20 mattress in a fixed position and a movable jaw configured to move relative to the fixed jaw to clamp the mattress between the side rail and the fixed jaw with a clamping force to mount the side rail alongside the mattress, the movable jaw including a window, and

a clamping force indicator configured to indicate whether the clamping
25 force complies with predetermined clamping force criteria, the clamping force indicator including a signaler and an elastic device, the movable jaw and the side rail being configured to move relative to one another to cause relative movement between the window and the signaler upon clamping and unclamping the mattress, the elastic device being configured to resist relative movement between the movable jaw and the
30 side rail upon clamping the mattress and to cause relative movement between the movable jaw and the side rail upon unclamping the mattress so that the signaler will display a clamped signal in the window when the clamping force complies with the predetermined clamping force criteria and will display an unclamped signal in the

window when the clamping force does not comply with the predetermined clamping force criteria.

21. The bed rail of claim 20, wherein the elastic device is a spring.

22. The bed rail of claim 21, wherein the clamping force indicator
5 includes a body that is coupled to the side rail and includes the signaler, a spring mount to which the spring is coupled, and a slide, the movable jaw includes a guide track and a spring loader, and the slide and the guide track are configured for relative slidable movement against one another to facilitate loading of the spring by the spring loader and movement of the window along the signaler upon movement of the
10 movable jaw toward the fixed jaw and engagement between the side rail and the mattress.

23. The bed rail of claim 22, wherein the slide includes a pair of parallel slide walls to which the spring mount is coupled, the spring is positioned between the slide walls and positioned on the spring mount, the spring loader is a tab,
15 the guide track includes a pair of outer edges included in the tab and a pair of parallel track walls spaced apart from the outer edges to provide a pair of gaps, and the gaps are configured to receive the slide walls to facilitate compression of the spring against the spring mount by the tab upon movement of the movable jaw toward the fixed jaw and engagement between the side rail and the mattress.

20 24. The bed rail of claim 20, wherein the clamping force indicator includes a slide, the movable jaw includes a guide track, and the slide and the guide track are configured for relative slidable movement against one another upon relative movement between the movable jaw and the side rail.

25 25. The bed rail of claim 20, wherein clamping force indicator includes a pair of lugs spaced apart from one another and coupled to an end portion included in the side rail and the movable jaw is formed to include a groove to receive the pair of lugs therein.

26. A bed rail comprising
a mattress clamping device adapted to clamp a mattress with a
30 clamping force to mount the bed rail alongside the mattress and
a clamping force indicator configured to provide information about the clamping force.

27. The bed rail of claim 26, wherein the clamping force indicator is configured to indicate whether the clamping force complies with predetermined clamping force criteria.

28. The bed rail of claim 26, wherein the mattress clamping device
5 includes a side rail and a clamp, the clamp includes a fixed jaw adapted to be positioned under the mattress in a fixed position and a movable jaw configured to move toward the fixed jaw to move the side rail toward the mattress to clamp the mattress between the side rail and the fixed jaw to mount the side rail alongside the mattress, and the clamping force indicator includes a body and a spring, the body is
10 coupled to the side rail and includes a spring mount and a signaler, the spring is coupled to the spring mount and is configured to resist movement of the movable jaw relative to the side rail upon movement of the movable jaw toward the fixed jaw and engagement between the side rail and the mattress so that the signaler will display a clamped signal in a window formed in the movable jaw when the clamping force
15 complies with predetermined clamping force criteria and will display an unclamped signal in the window when the clamping force does not comply with the predetermined clamping force criteria.